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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/781,459 | 02/12/2001 | Michael C. Murphy | 12569-106 | 9604 |
| 26486 | 7590 | 08/15/2005 | EXAMINER | |
| PERKINS, SMITH & COHEN LLP ONE BEACON STREET 30TH FLOOR BOSTON, MA 02108 | | | NGUYEN, DUNG X | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2638 | |

DATE MAILED: 08/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/781,459

Applicant(s)

MURPHY, MICHAEL C.

Examiner

Dung X. Nguyen

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 9, 11 - 16, 19, 21 - 27, 32 - 42, 44 - 52, and 56 - 62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 6, 11 - 16, 19, 21 - 27, 32 - 37, 47 - 52, and 56 - 62 is/are allowed.
- 6) ☒ Claim(s) 2, 7, 39 - 41, 44, and 46 is/are rejected.
- 7) ☒ Claim(s) 3 - 5, 8, 9, 42, and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John A. Hamilton, the applicant's attorney, on June 09, 2005, July 08, 2005, and July 12, 2005.

IN THE ABSTRACT:

After "center tapped winding." The statement of "A transmitter circuit, . . . to the end" as beginning recited in line 12 has been deleted.

IN THE CLAIMS:

Claims 29, 30, 64, 65, and 67 – 72 have been canceled.

Claim 43 has been canceled.

Claim Objections

2. **Claim 44 is objected** to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 44 is written in instruction claim with the pre-amble of "A method as in claim 43 for driving said signal on two output contacts, so a differently phased version of the signal is supplied to each such contact, wherein:" and does not further limit the canceled claim 43 written in method claim with the pre-amble of "A method of operating an output circuit for driving with an FET power transistor having an output contact and control gate with a parasitic capacitance, said method comprising:". So the canceled claim 43 and the current claim 44 have a different structure and they cannot be added together.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention

4. **Claims 2, 7, 39 – 41, 44, and 46 are rejected** under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, the limitations of "said power transistor" in line 2 and "one of each said gate drive circuits" in line 7. There are insufficient antecedent basis for this limitation in the claim.

Regarding claim 7, the limitations of "said power transistor" in line 4 and "one of each said gate drive circuits" in lines 7 and 8. There are insufficient antecedent basis for this limitation in the claim.

Regarding claim 39, the limitation of "said power transistors" in line 14. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 40, the limitation of "the gate of each of said four power transistors". There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 41, the limitations of "each of said control gates" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Regarding original claim 44, the limitation of "said power transistors" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 46, the limitation of "said control gates" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Allowable Subject Matter

5. **Claim 39 and original claim 44 would be allowable** if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, or the objection(s), set forth in this Office action.
6. **Claims 2, 7, 40, 41, and 46 would be allowable** if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
7. **Claim 3 - 5, 8, 9, 42, and 45 are objected to** as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. **Claims 1, 6, 11 - 16, 19, 21 - 27, 32 - 37, and 47 - 62 are allowed.** The following is a statement of reasons for the indication of allowable subject matter:

Regarding to the claimed invention, the prior art of record fails to show or render obvious of a transceiver for driving and receiving signals through a transformer having an output transistor and a circuitry, which provides a controlled current to/form the output of transistor's gate, so as to charge and discharge the gate's parasitic capacitance and increasing/decreasing the transistor's output current in a controlled manner.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (571) 272-3010. The examiner can normally be reached on Monday through Friday from 8:00 AM to 17:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Vanderpuye Kenneth N. can be reached on (571) 272-3078. The fax phone numbers for this group is (571) 273-3021.

Art Unit: 2631

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

DXN

June 13, 2005



KENNETH VANDERPUYE
PRIMARY EXAMINER